

# The current political consensus is that Germany should quickly phase out coal-fired power generation. How this process could succeed without causing economic upheavals is not yet clear. Ideological demands won't help us move forward

by Christian Kullmann



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**T**he vision behind Germany's energy transition sounds superb. We will renounce nuclear power, coal, and natural gas and instead generate our electricity from the sun and the wind. These are free, clean resources that will be endlessly available forever. We will make ourselves completely independent of imports, significantly reduce our emissions, and simultaneously develop pioneering new technologies that we can sell all over the world.

Of course this wonderful vision makes it worthwhile to continue investing in research and development in the area of alternative power generation. We want to one day actually build systems that can not only generate but also store electricity in ways that are clean, reliable, and economical. And if our engineers, technicians, physicists, and chemists can't do it, who can? At that point, conventional power plants would be unnecessary. The researchers at Evonik are also working hard to make this prospect a reality. For example, with our products we are enabling the construction of ultramodern high-yield wind turbines. As the CEO of a company whose future crucially depends on its innovative power, I have confidence in this research. But at the same time, I know from experience that achieving the impossible doesn't happen overnight. And performing miracles takes a little bit longer.

In order to bring Germany's energy transition to a successful conclusion, the two things we need most of all are time and money. As far as time is concerned, the people who are mainly responsible for it are the politicians who are legislating ambitious timetables in Berlin, Paris, and Marrakesh in order to steadily increase the proportion of renewable energy and decrease CO<sub>2</sub> emis-

sions. The goal of the Paris Convention, to limit global warming to a maximum of 2 °C compared to the temperature of the preindustrial era, has been defined. And Evonik is giving it its full support. However, if we want to take these plans seriously, we need a broad international consensus, because this global challenge can certainly not be solved by solo initiatives of individual nations.

As for the second requirement, money, we are the responsible partners—private electricity consumers and companies large and small. In other words, all of us. Through the German Renewable Energy Sources Act, we are subsidizing the construction of more and more new wind turbines and rooftop solar panels with over €20 billion, year after year. That's a huge amount of money. By comparison, the amount spent on subsidizing Germany's hard coal mining industry, which has at times been vehemently criticized, seems quite modest.

If we were in fact on the brink of genuinely being able to generate and store clean, reliable, and economical power from renewable sources, these gigantic subsidies paid out over decades would be justified as worthwhile investments. However, the reality is quite different. So far, we have not been able to safeguard a baseload supply of

power from wind and solar systems in Germany. On the contrary, this summer conventional power stations covered well 63 percent of our electricity needs. And the main providers of this energy were coal-fired power plants, whose contribution to safeguarding the power supply continued to grow, in spite of the increasing construction of "green" power stations.

For industrial companies, this reliable power supply is a key advantage of Germany as a business location. Energy-intensive companies such as Evonik can operate production facilities only in places where there are virtually no power failures. This circumstance, which is a key factor of our country's prosperity, seems to be neglected at times in the broad-based discussion of how to phase out coal mining and save the world's climate. Against this background, the composition of the German government's "Coal Commission" raises a number of questions. How many representatives of energy-intensive industries are among the over 30 members of this important commission? It's striking that the only one is Michael Vassiliadis, the Chairman of the IG BCE labor union. There's no doubt that he's a good representative of the interests of the employees. But the commission's work would benefit if the energy-intensive industry were also directly represented at the negotiation table.

So far, no binding date has been set for the end of Germany's coal-fired power plants. We've been hearing that it's no longer a question of whether but rather of

when. Meanwhile, the question of how still remains open today.

What will eventually replace coal-fired power generation? How can Germany stay attractive in the tough competition with the up-and-coming industrial locations in Asia and the Americas? And how can we successfully encourage other industrial countries to join us as we move toward a huge energy transition—instead of forging ahead on our own? To answer these questions, we need to create a master plan for the energy policy of Europe as a whole, instead of only symbolically haggling over dates.

Given the current state of technology, if nuclear and coal-fired power are phased out as a matter of policy, power stations fired with natural gas will be the only substitute that can safeguard our power supply. Natural-gas power plants also emit CO<sub>2</sub>, but in much smaller amounts than coal-fired power plants. They can also be ramped up and down faster—and thus are more easily harmonized with the volatile generation of energy by solar and wind systems. However, this raises the question of supply reliability to a whole new level: that of the amounts of fuel they will need.

Germany has no natural gas deposits worth mentioning, and suppliers in Europe such as Norway, the Netherlands, and the UK can by no means cover Germany's requirements. As a result, our natural gas-fired power plants will be primarily dependent on natural gas from Russia. It's a good thing that the USA's producers of natural gas are now also rushing into the European market.

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That's creating competition between the suppliers and, from a European viewpoint, preventing overly one-sided dependencies.

But our enthusiasm for this new possible source of supply should not lead us to block off our connections with the East. Germany and the rest of Europe urgently need the second Nord Stream pipeline through the Baltic Sea. Without it, natural gas would soon become scarce if we one day really do take the last German coal-fired power station off line. And let's not forget that Russia has been our reliable partner as an energy supplier for decades, undisturbed by any political conflicts, even across the system boundaries of the Cold War. There's no reason why that should not continue in the future.

In conclusion, the phasing-out of coal and the transition to renewable energy sources and natural gas can succeed in our country without major economic upheavals only if we move forward with sound judgment and without ideological inputs. What will happen to the coal market at that point? Well, it will continue to flourish without us. At the moment, no less than 1,500 new coal-fired power stations are under construction all over the world. This fact is common knowledge in Europe. But it seems to be having no effect on the urgency of Germany's phaseout of coal. —